

A native of Brazil and of somewhat recent introduction in India, the trees *J. mimosifolia* may be seen in private and public gardens.

ZOOLOGICAL SURVEY OF INDIA,
34, CHITTARANJAN AVENUE,
CALCUTTA-12,
June 25, 1954.

A. P. KAPUR
M.Sc., Ph.D. (Lond.), D.I.C.

45. PRESUMPTIVE FATAL STING OF THE COMMON HOUSE WASP, *POLISTES HEBRAEUS*

Here in Dehra Dun, on July 17, 1954, at 16.05, I.S.T., a lady aged 63 years was stung by a yellow house wasp, *Polistes hebraeus*; between the 3rd and the 4th toe of her right foot. She became very restless and complained of breathlessness. Medical aid was promptly summoned. On arrival, at about 16.17 the doctor gave the lady an injection of Adrenalin. She expired almost immediately—only 12 minutes after being stung.

It is a fact that the lady was unusually sensitive to wasp sting. On previous occasions when stung by a wasp she used to feel a great deal of pain all over her body and also complained of a choking sensation. She was slightly asthmatic—an injection of Adrenalin, however, used to give her prompt relief.

This case appears to be unique as no one here seems to have heard of a similar one.

16, RAJPUR ROAD,
DEHRA DUN, U.P.,
August 2, 1954.

J. N. ONIAL,
P.F.S. (Retd.)

46. SOME INSECTS ATTRACTED TO LIGHT

The following insect species were taken at light in Bangalore from 20th October to 5th November 1953. They were caught inside a study room into which they entered through an eastern window (4 ft. x 2 ft.), 5½ ft. above the ground level, and overhung by an electric light (25 W, 50 C, 220 V, 5 A), the illuminated filament being visible from outside. The wide range of species obtained is of considerable interest, when the visual stimulus in insects is known to be complex and the form and magnitude of the response variable from species to species with the location and the intensity of illumination, length of exposure period, degree of light or dark adaptation, time of day, and temperature (Dethier, 1953). Of the 90 species collected, as many as 33 are of economic importance, and these are indicated by an asterisk. No comprehensive list of insect species attracted to light appears to be available in the Indian literature, although Lefroy (1909), Dina Nath (1923) and Ayyar and Anantanarayanan (1934) recorded certain common examples along with the principal families whose members showed positive phototropism; light-traps have, however, been a favourite experiment with economic entomologists for the control of some major crop pests (Ayyar and Anantanarayanan,

1934; Ballard, 1923; Dina Nath, 1923; John, 1947; and Putta Rudraiah, 1945-46).

Meteorological Data.—Hours of catches: 7 to 11.30 p.m.

20th to 31st October: Temperature range 65.5°F. to 84.2°F. with an average of 73.5°F., night temperature normal to below normal; mainly cloudy weather, with intermittent rain, slight to 1.72 inches. Wind velocity 2.0 to 3.6 m.p.h., direction WSW., SSW. and NNW. A great majority of the insects were taken during this period.

1st to 5th November: Temperature range 55.1°F. to 81.1°F. with an average of 69.3°F., night temperature below normal; weather fair to dry. Wind velocity 2.5 to 3.7 m.p.h., direction, N., NNE. and NE.

Acknowledgments.—I am grateful to Dr. M. Putta Rudraiah, Government Entomologist, Bangalore, for facilities and encouragement. I am also highly indebted to the Director, Commonwealth Institute of Entomology, London, for kind courtesy in determining most of the insect species.

LIST OF INSECTS

ORTHOPTERA

Gryllidae.

Pteronemobius csikii Bol.

DERMAPTERA

Forficulidae.

Diplatys sp.¹

ISOPTERA

Kalotermitidae.

**Neotermes assmuthi* (Holmgren).

HEMIPTERA

Coreidae.

Liorhyssus rubicundus Sign.

Lygaeidae.

Eucosmetus sp. and *Metochus uniguttatus* Thunbg.

Nabidae.

**Nabis capsiformis* Germ.

Miridae.

Licocoris sp. and *Trigonotylus dohertyi* Dist.

Delphacidae.

Perkinsiella fascialis Dist. and *P. insignis* Dist.

Jassidae.

Euscelis indicus Dist., **Nephotettix apicalis* Motsch. and **N. bipunctatus* Fabr.

¹ A new species, since described as *Diplatys excidens* Hincks—*Proc. Roy. ent. Soc.*, Ser. B, 23, (9-10): 161.

LEPIDOPTERA

Pyralidae.

Ancylolomia sp., **Antigastra catalaunalis* Dup., *Bostra* sp., *Canthelea lateritalis* Walk., **Chilo zonellus* Swinh., **Cnaphalocrocis medinalis* Guen., *Epipagis cancellalis* Zell., **Glyphodes bivitalis* Guen., **Hymenia recurvalis* Fab., *Nephopteryx* sp., *Nymphula diminutalis* Snell., *N. stagnalis* Zell., *Psara licarsisalis* Walk., *Pristarthria minutella* Rag., **Pycnarmon cribrata* Fab., **Pyralis manihotalis* Guen., **Raphimetopus ablutella* Zell., **Schoenobius bipunctifer* Walk., *Synciera traducalis* Zell., and *Udea martialis* Guen.

Bombycidae. *Trilocha varians* Walk.

Geometridae.

**Anisephyra ocularis* Fab., *Scopula idearia* Swinh., **S. octuaria* Walk., and *Sterrha lineata* Hmps.

Syntomidae. **Syntomis passalis* Fab.

Lymantriidae. **Laelia litura* Walk.

Arctiidae. **Amsacta lineola* Fab., *Celama taenista* Snell., *Siccia guttulosa* Walk., **Utetheisa pulchella* Linn.

Agrotidae (Noctuidae).

Antarchaea mansueta Walk., **Anticarsia irrorata* Fab. **Cosmophila flava* Fab., *Dichromia orosia* Cram., *Eublenma anachoresis* Wlgrn., **Euxoa spinifera* Hb., *Hydrillodes morosa* Butl., *Hypena strigata* Fab., **Mocis frugalis* Fab., *Nodaria cornicalis* Fab., *Ozarba hemiphaea* Hmps., *Ozarba* sp., *Perigea serva* Walk., **Polytela gloriosae* Fab., *Prodenia litura* Fab., *Proxenus melanospila* Guen., *Rhynchina pervulgaris* Swinh., *Rivula bioculalis* Moore, **Sesamia inferens* Walk. and **Spodoptera mauritia* Bsd.

COLEOPTERA

Carabidae. *Colpodes ruficeps* Maol.

Staphylinidae. *Zyras bicolor* spp. and *Z. indorum* Fauv.

Anobiidae (Ptinidae). **Lasioderma sericorne* F.

Elateridae. *Cardiophorus formosus* Curtis.

Tenebrionidae. *Curimosphena fasciculatus* Fa.

Scarabaeidae. **Heliocopris bucephalis* Fab.,

**Oryctes rhinoceros* Lin. and *Phyllognathus dionysius* Fab.

Aphodiidae. *Aphodius carinulatus* Motsch.

HYMENOPTERA

Braconidae. *Heterogamus* sp. and **Microbracon hebetor* Say.

Ichneumonidae. *Cremastus* spp., **Enicospilus* sp., and *Netelia* sp.

Eulophidae. **Tetrastichus* sp.

DIPTERA

Psychodidae. *Psychoda alternata* Say and *Telmatoscopus albipunctatus* Will.

Culicidae. *Chaoborus* sp.

C hironomidae. *Pentaneura* sp. and *Polypedilum* sp.

Sciaridae. *Sciara* sp.

Muscidae. **Atherigona* sp. (possibly *oryzae* Mall.)

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LITERATURE CITED

- (1) Ayyar, Ramakrishna T. V., and Anantanarayanan, K. P. (1934) ; *Mad. Agr. Jour.*, **22** : 268-273.
- (2) Ballard, E. (1923) ; *Mem. Dept. Agri. India, Ent. Ser.*, **7** (13).
- (3) Defhner, V. G. (1953) ; *The Insect Physiology*, John Wiley & Sons, Inc., New York, pp. 488-522.
- (4) Dina Nath (1923) ; Rep. Proc. Vth Ento. Meet, Pusa, 65-74.
- (5) John, C. M. (1947) ; Ind. Oil Seeds Comitt., Scheme of Res. on Pests & Diseases of Groundnuts, Madras Province, Final Rep., 1-32.
- (6) Lefroy, H. M. (1909) ; *Indian Insect Life*, Thacker, Spink & Co., Calcutta, 106-107.
- (7) Putta Rudraiah, M. (1945-46) ; *Mys. Agr. Jour.*, **24** (1) : 4-9.

47. LEECHES

Referring to Mr. Smythies's interesting note¹ on leeches, while not professing to be an expert on them, by many years of close contact (*sic*) with them in my vocation as a planter, I have been forced to observe these revolting creatures and their ways, and my observations may be useful to add to his.

I do not know how many species there are but have noted what appear to be many, some mottled, some striped and large, some small and black; these latter seem to be far the most painful as I have always found that when one can feel the stinging bite, one may be sure to find a small black one at work, whereas the larger ones are not noticed until one feels the wet sticky blood trickling down after they have dropped off. I have seen a very large pale coloured one on cattle. I presume that they are entirely dependent on blood for sustenance as their mouth parts are not designed for any other form of food. There are many warm-blooded mammals in the jungle for them—I have found them on snakes, but even then many must go hungry though in common with snakes, they too can go for long periods without food and it would be interesting to know how long a gorged leech takes to digest its load of blood. In the Anaimalai Hills I have found them throughout the dry weather along stream edges under heavy coffee shade and mulch. Many must die when they drop off their temporary hosts on to unsuitable ground and the blood inside them congeals in the hot sun before they can reach moist cover. A leech must have coolth and moisture to live.

It is well known how soon they appear again at the first rains after the dry period. Like earthworms, leeches carry their eggs in a larger segment of the body; when is this shed releasing the eggs,

¹ *JBNHS*, 51 (4) : 954.